Project Design Phase-I
Proposed Solution
Template

Date	13 October 2023
Team ID	Team-592538
Project Name	AUTOMATED PREDICTION MODEL FOR DIABETIC RETINOPATHY USING CNN
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Develop a solution for the early detection of Diabetic Retinopathy to improve the visual health of diabetic patients by addressing challenges related to timely diagnosis and image quality variability, while providing actionable insights for healthcare professionals.
2.	Idea / Solution description	Our approach centers on harnessing Convolutional Neural Networks (CNNs) to construct an automated prediction model for Diabetic Retinopathy. It enables early diagnosis and timely intervention for diabetic patients to preserve their vision.
3.	Novelty / Uniqueness	Utilizing deep learning models like CNN and VGG-16 demonstrates a commitment to leveraging state-of-the-art technology for DR detection. The solution's ability to provide an inflexibility grade for DR using machine learning models like CNN and VGG-16 demonstrates adaptability.
4.	Social Impact / Customer Satisfaction	Our solution will significantly impact public health by enabling early detection of Diabetic Retinopathy, thereby improving customer satisfaction among patients and healthcare providers who can intervene timely to prevent vision loss and enhance overall well-being.
5.	Business Model (Revenue Model)	Efficiency gains in healthcare and revenue opportunities can be realized by offering an automated Diabetic Retinopathy assessment tool, differentiating businesses in the healthcare tech sector while expanding their global reach to underserved markets.
6.	Scalability of the Solution	Our solution is inherently scalable, accommodating a growing volume of retinal images and healthcare providers, ensuring its adaptability to the increasing demand for automated Diabetic Retinopathy assessment on a larger scale.